

## IN THE CLAIMS

Page 12, line 1, change "Claims" to --What is claimed is:--.

Claims 1-28 (cancelled).

29. (New) 1. A method for generating extreme ultraviolet (EUV) or softX- ray radiation comprising the steps of:

generating and heating a plasma in a hybrid manner by the combination of a laser radiation produced by a laser source which is focused to intensities beyond  $10^6 \text{W/cm}^2$  onto a target and of an electric discharge produced by electrodes combined with means for producing a rapid electric discharge; and

providing that the time constant of the laser produced plasma expansion time exceeds the characteristic time constant of the discharge.

30. (New) A method according to claim 29, wherein the target is a gaseous, liquid, liquid spray, cluster spray or solid medium, such as a bulk or foil target, more than  $10^{19} \text{atoms/cm}^3$ .

31. (New) A method according to claim 29, wherein a EUV plasma is first produced by the laser radiation focused on a dense target in a laser interaction zone and subsequently a discharge is induced across the laser interaction zone thereby boosting the initial laser produced plasma and enhancing total EUV light production.

32. (New) A method according to claim 29, wherein a cold plasma is generated by the laser radiation focused on the target to produce a cold plasma plume and a discharge is then actively triggered in a delocalised interaction zone of the plasma plume to heat and compress the plasma for more confined EUV light emission.

33. (New) A method according to claim 29, wherein an EUV plasma is first produced by use of a conventional electrical discharge configuration and subsequently, during a pinch process of the discharge when the plasma becomes sufficiently dense, laser radiation is focused on that high density discharge plasma thereby boosting the initial discharge produced plasma and enhancing the EUV light production.

34. (New) A method according to claim 29, wherein the current pulses that are applied in

the presence of plasma by the electrodes are provided by the rapid discharge of capacity stored energy.

35. (New) A method according to claim 29, wherein the current pulses that are applied in the presence of plasma by the electrodes are selected with a period within a one-to-three digit nanosecond range.

36. (New) A method according to claim 29, wherein the current pulses that are applied in the presence of plasma by the electrodes are selected with amplitudes in a two-to-three digit kilo-ampere range.

37. (New) A method according to claim 29, wherein the current pulses that are applied in the presence of plasma by the electrodes are switched in a defined temporal relation with the firing of the laser pulses produced by the laser source.

38. (New) A method according to claim 29, wherein the plasma produced has a temperature in the six-digit Kelvin range.

39. (New) A method according to claim 29, wherein the plasma is generated with gas pressures selected in the range below 10 Pa.

40. (New) A method according to claim 29, wherein the plasma emits radiation with wavelengths shorter than 50 nm.

41. (New) A method according to claim 29, wherein the target is chosen from the following materials: xenon, tin, copper, lithium, oxygen, iodine.

42. (New) A device for generating extreme ultraviolet (EUV) or soft X- ray radiation comprising:

a laser source for producing a laser radiation which is focused to intensities beyond  $10^6 \text{W/cm}^2$  onto a target to produce a plasma;

said electrodes located around the path of the plasma produced by the laser source;  
and

said electrodes being combined with means for producing a rapid electric discharge in the plasma with a characteristic time constant which is less than the time constant of the laser

produced plasma expansion time.

43. (New) A device according to claim 42, wherein the means for applying electrical energy comprises a pulse compressor.

44. (New) A device according to claim 42, wherein the means for storing electrical energy comprises a capacity bank.

45. (New) A device according to claim 44, wherein the electrodes are connected directly to the capacity bank to produce said rapid electric discharge.

46. (New) A device according to claim 44, wherein the electrodes are connected to the capacity bank through a power on-off switch which is switched on by a logic control element to produce said rapid electric discharge.

47. (New) A device according to claim 42, wherein the discharge time between the electrodes is between 100 ns and 200 ns, whereas the laser pulse duration of the laser pulses generated by the laser source is a few nanoseconds and does not exceed 60 ns.

48. (New) A device according to claim 42, comprising a nozzle for injecting a cold jet target, a micro-liquid jet, a droplet spray target, a cluster jet target or an effusive gas target into a joint vacuum chamber equipped by at least one electrically insulating block to hold the electrodes around a laser interaction zone of the target.

49. (New) A device according to claim 48, wherein the electrically insulating block has a high thermal conductivity.

50. (New) A device according to claim 49, wherein the electrically insulating block is cryogenically cooled and allows evacuating the head load produced by absorption of both unused in-band and out-of-band radiation.

51. (New) A device according to claim 49, wherein the electrically insulating block also acts as a head shield for a cryogenic target injector.

52. (New) A device according to claim 48, wherein said device further comprises a second vacuum chamber that is connected to the first vacuum chamber via an orifice for receiving the unused target material downstream the EUV light emission zone.

53. (New) A device according to claim 48, wherein the electrodes are arranged in either a Z-pinch, hollow cathode pinch, star pinch, or capillary discharge configuration.

54. (New) A device according to claim 42, comprising a laser source for producing a laser radiation which is focused to intensities beyond  $10^6 \text{W/cm}^2$  onto a dense target to produce a plasma.

55. (New) A device according to claim 42, wherein a laser beam produced by the laser source irradiates a solid bulk, solid foil, liquid, spray, cluster or effusive gas target to produce a cold plasma plume and the discharging electrodes are arranged on the path of the plasma plume with the laser interaction zone, the discharging electrodes contributing to heat and compress the plasma for more confined EUV emission.

56. (New) A device according to claim 55, comprising a pulse generator connected to the electrodes that triggers an electrical discharge as the plasma plume enters the space between the electrodes.

57. (New) A device according to claim 42, comprising discharging electrodes which are arranged next to a jet target to produce a high density plasma using a conventional discharge configuration of a GDPP on the path of the plasma, a laser source which irradiates said plasma in a way which sustains the emission of EUV radiation, and a means to trigger the laser pulses when the pinch process makes the plasma dense enough to allow additional laser heating.